

# Good collaborations: A case study of the Health Information Technology partnership

Report prepared for the Community & Technical College at the University of Alaska Anchorage

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# About CAEPR

The Center for Alaska Education Policy Research (CAEPR) is a non-partisan research organization within the Institute of Social and Economic Research (ISER) at the University of Alaska Anchorage (UAA). More information about CAEPR can be found on our website: <http://www.iser.uaa.alaska.edu/CAEPR/>

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# Executive summary

The Health Information Technology grant was a collaborative partnership between the Cook Inlet Tribal Council (CITC), the University of Alaska Community & Technical College (UAA CTC) and the University of Alaska Southeast (UAS) to establish the infrastructure for a distance-delivered Occupational Endorsement in Health Information Technology. This document describes a case study research project that explored the activities of the collaboration, specifically as they pertain to student services and outcomes.

Student eligibility criteria included: Alaska Native, low-income, GED or high school diploma, and a 10<sup>th</sup> grade TABE test score; many of the student participants exhibited demographic characteristics that placed them at high risk for noncompletion. Ultimately, 10 of 25 (40%) completed the credential, and of these graduates, five are continuing their postsecondary studies for an associate's or bachelor's degree. These success rates that exceed national averages for community college students prompted the team to explore the program elements that contributed to student success.

A qualitative case study collected interview data from student completers, program staff, and faculty. It also reviewed program documents, and included visits to the physical spaces where the program was delivered.

Tangible or material resources that contributed to the program's success included stipends for student tuition and fees plus hourly compensation for time spent in class; the provision of laptops; adequate technology; staff and services that supported college transitions, social and personal needs, and academic success; a face-to-face kickoff event; and a cohort model. Qualitative aspects of the program that fostered success include staff commitment and positive attitude; clear roles for partners with a distributed workload; alignment of program objectives to each of the partners' missions; communication; and student perseverance.

Program elements that need to be revised, expanded, or improved prior to a second iteration include course sequencing, recruitment, technology, class times, and additional stipends. Opportunities for additional programming include industry involvement, career exploration, options for students who "change majors" or decide that the HIT field is not a good fit for their interests, job seeking and career planning support, additional attention to college readiness and soft skills, and incorporation of Alaska Native culture.

A review of program elements that worked and need improvement identified opportunities to better align theory and philosophy, and to strengthen communication between staff and faculty who have complementary responsibilities to one another and to students. These discussions are recommended in order to develop more intentional and focused recruiting, to strengthen communication, and to develop a more culturally responsive curriculum.

Though the program does not yet present itself as a best practice model, the program strengths and lessons learned were used to develop considerations for other programs and partnerships wishing to develop similar delivery methods.

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## Introduction

Academics and grant recipients live in a culture of sharing and criticism. When individuals or programs do good work, they share it freely as examples of best practices and lessons learned through innovation. At the same time, they scrutinize their work – to identify where it is weak, what assumptions are wrong, what could be improved. This report is made in this complementary spirit of celebration and critical reflection.

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## Health Information Technology

The field of Health Information Technology (HIT) is described as “information technology applied to healthcare.” Rather than direct patient care, HIT professionals work to ensure the secure electronic exchange of health information between consumers, providers, government, accreditors, and insurers. They compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. The use and safe management of digital records increases the quality, safety, and efficiency of the health delivery system, and expands access to healthcare.

## The credential

The credential offered through this collaborative partnership was an Occupational Endorsement Certificate as a Health Information Management Coding Specialist.

**Occupational Endorsement Certificates (OECs)** are postsecondary credentials requiring 29 or fewer credits. These certificates provide the specialized knowledge and skills needed in specific employment sectors, and are noted on a student’s transcript. This particular OEC entailed 15 credits, earned in five classes: *Computer Literacy*, *Introduction to Health Information Management*, *HIM Emerging Technologies and Applications*, *Healthcare Privacy and Security*, and *Healthcare Information Technology*. The certificate allows students to obtain entry-level skills in healthcare coding and the opportunity to continue to earn an associate of applied science degree.

**Health Information Management (HIM) Coding** is an area of HIT specifically focused on coding/classifications systems at both the inpatient and outpatient level. HIM professionals are experts in the field of patient health information and medical records, and duties can include operating computer information systems, coding diagnoses and procedures for reimbursement, maintaining quality control of health records, and more. These professionals are also the caretakers and guardians of personal health information—ensuring that confidential patient information is secure and released only according to strict state and federal laws. Associated job titles include: Coder, Health Information Clerk, Health Information Specialist, Health Information Technician, Medical Records Analyst, Medical Records Clerk, Medical Records Coordinator, Medical Records Director, Medical Records Technician, and Registered Health Information Technician (RHIT).

## Employment landscape

The employment outlook for HIM and HIT professionals is strong, both nationwide and in Alaska. O\*NET ([www.onetonline.org](http://www.onetonline.org)) reports strong earning potential and projects significant job growth, and these are reflected in Table 1.

*Logic would tell you that health industry in general is one of the few that are just booming right now. There's probably quite a bit of digital conversion and consolidation, and most record-keeping is going to be all digital. I would say it's got a high outlook for jobs.<sup>1</sup>*

Table 1 Health Information Management & Health Information Technology job forecast		
	Alaska	Nationwide
Median 2014 wages	\$19.53/hour	\$17.26/hour
	\$40,600/year	\$35,900/year
Projected growth (2012-2022)	22% or higher	22% or higher
	"much faster than average"	"much faster than average"
Projected job openings (2012-2022)	100	90,400
Significant job growth is projected in this industry, both in Alaska and nationwide.		

## Partners

The pilot project engaged the cooperation and collaboration of three significant entities, as well as the student participants.

**Cook Inlet Tribal Council (CITC)** is a tribal nonprofit organization that focuses on people, partnership, and potential. Since 1983, CITC has worked to help the Alaska Native and American Indian people residing in the Cook Inlet region of southcentral Alaska to reach their full potential. The **Employment Training Services Division (ETSD)** assists participants in achieving self-sufficiency through finding meaningful and sustainable employment. Participants receive support as they progress through lifestyle changes and enhance their communication, life management, and vocational and academic skills in order to succeed in the professional world. ETSD provides strengths-based welfare-to-work case management, supported work experience, childcare financial assistance, vocational rehabilitation, individual development accounts, employment placement referral, career and job counseling, employee recruitment and a one-stop Career Development Center.

**The University of Alaska Southeast (UAS)** is a public, four year university and one of three major academic units in the University of Alaska system. The Sitka campus offers occupational endorsement certificates, certificates, and associate degrees in career and technical fields and general education transfer programs. Its Health Information Management program is the only Alaska program accredited by the Commission on Accreditation for Health Informatics and Information management Education (CAHIIM), and prepares students for jobs in the fast-paced, high-paying, and in-demand field.

**The University of Alaska Anchorage (UAA)** is the largest unit in the University of Alaska system, and the **Community & Technical College (CTC)** mission is to build Alaska's workforce, with an emphasis on programs that provide students with knowledge and technical skills focused on success in high-demand

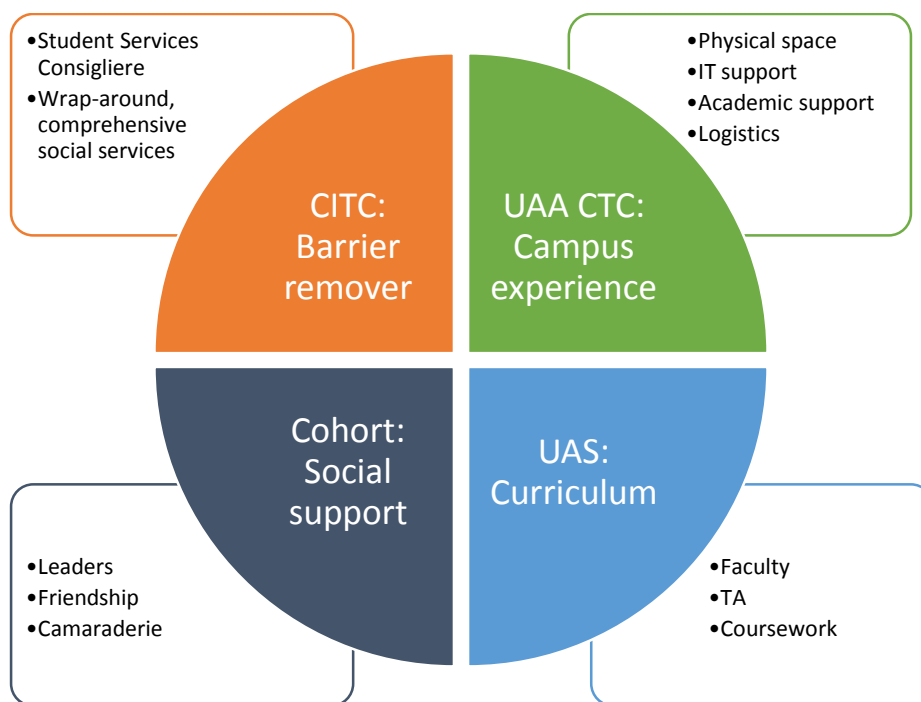
<sup>1</sup> Text boxes are used throughout this document to share illustrative comments that were shared by students, faculty, and program staff. To protect anonymity, none of the statements are attributed; however statements from students are noted in blue comment boxes to distinguish them from the providers.

career areas in Alaska, the nation, and beyond. Offering occupational endorsement certificates; undergraduate and graduate certificates; and associate's, bachelor's, or master's degrees in a variety of fields, it is responsive to the needs of lifelong learners in a changing world through leadership collaboration within the community.

Providing students with the opportunity to earn a HIM OEC aligned with the objectives and missions of each organization. Their unique commitment, coupled with industry demand and students' employment needs created a solid foundation for a partnership aimed at success for individual students and meeting community workforce development needs. Figure 1 depicts each entity's commitment and responsibility to the project.

Figure 1

### Program roles and responsibilities



*Three independent entities came together with a student cohort to create a collaborative partnership.*

### Structure

Though there is a significant need for trained HIM professionals in Anchorage and CITC serves the Cook Inlet region, the only credential available in the state is housed nearly a thousand miles away in Sitka. The curriculum was delivered via distance to a cohort of students in Anchorage using a homeroom model/concept adapted for a distance and adult population. Students came together physically on Tuesdays and Thursdays from 10 am to 1 pm for class, learning, and career development opportunities.

Human resources in direct contact with and service to students included inputs from all partners. From Sitka, the faculty dialed in via videoconference for class. Students convened at the University campus in Anchorage, where they also received support from a teaching assistant, tutors, administrative professional, and IT professional. Also in Anchorage was a student services consigliere from CITC, who

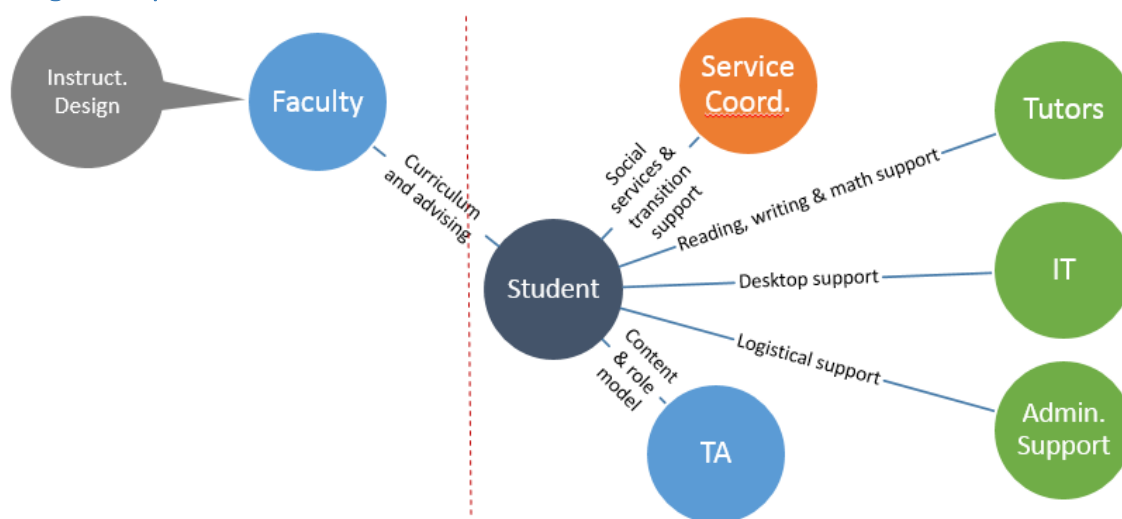
met with students individually at the CITC facility, came to campus, and provided individualized support. These are roles represented in figure 2.

In addition to the social supports, material resources also provided an important foundation for the program's success:

- **Equipment** – Each student was given a personal laptop, which they could take home and use in class.
- **Tuition** – The grant covered the cost of tuition, books, and college fees.
- **Stipends** – Students earned a stipend of \$8.75 per hour (the current Alaska minimum wage) for all time spent in class and engaged in on-campus learning activities.
- **Services** – Arranged through CITC and the University, students were able to access or connected with services including transportation, clothing assistance, TANF, and other needed services.

Figure 2

### Program inputs and services to the students



*Each entity provided staff who directly served students. CITC, depicted in orange, provided a student services consigliere; UAS, depicted in blue, provided faculty and a teaching assistant; and UAA CTC, depicted in green, provided tutors, IT support, and administrative support. Though the faculty were located remotely, all other program staff were physically in Anchorage with students. Additionally, an instructional designer provided direct support to the teaching faculty.*

## Timeline & schedule

Recruitment for the program began in January of 2014, with classes starting in March. Students took two classes in the first semester, and then one class per session through program completion. At the end of the college coursework, students completed a life skills and college bridging course, aimed at preparing them for continuing on for an associate degree or job placement. Table 2 details the schedule of classes and program activities.



Table 2

## Schedule of classes and activities

Month	Activities
January – February 2014	Recruitment
March 2014	Student Orientation
March 2014	<i>Computer Literacy</i> <i>Introduction to HIM</i>
Summer 2014	<i>HIM Emerging Technologies and Applications</i>
Fall 2014	<i>Healthcare Privacy and Security</i>
Spring 2015	<i>Healthcare Information Technology</i>
May 2015	Graduation
Summer 2015	Life skills and bridging college class
<i>The sequential courses were structured to allow students to complete the entire credential in 15 months, with additional professional development courses after graduation to facilitate transitions to college and jobs.</i>	

## Student Cohort

The recruitment period between receiving the grant award and classes starting was short: approximately 8 weeks. Because CITC's ETSD works with a broad client base, much recruitment occurred with existing clientele, but students were also recruited from local high schools and other Alaska Native-serving organizations. To be eligible, students needed to be: Alaska Native, low-income, possess a high school diploma or GED, and score at the 10<sup>th</sup> grade level on a Test of Adult Basic Education (TABE) assessment. The application process included these documents as well as recommendation letters and a personal essay; though 65 people expressed initial interest in the program, the ultimate pool of interested and eligible students was identical to the number of available slots. Ultimately, 25 students were identified as program participants, and a demographic profile for the cohort is presented in Table 3.

The literature on community college students notes some factors associated with student attrition. Some of these include:

- Academic under-preparedness (Brothen & Wambatch, 2012; Crosta, 2013; Gerlaugh, Thompson, Boylan & Davis, 2007)
- Being a minority (College Board, 2007)
- Being low income or working class (Goldrick-Rab, 2006; Lum, 2008)
- Being nontraditional-aged (Crosta, 2013)
- Being a first-generation college student (Longwell-Grice, 2003)
- Attending college part-time (Crosta, 2013; Offenstien, Moore & Schulock, 2009)

Table 3

## Cohort demographic profile

Male	2
Female	24
Age range	20-61
Average age	26
Median age	28
Average high school GPA*	2.20
GED to high school graduate ratio*	1:2

\*Compiled from available data; many student records did not contain this information.

*All members of the student cohort were Alaska Native, and the students also represented a nontraditional-aged student population with limited experiences in high school that would prepare them for college expectations and success.*

Conversely, attributes associated with college success and graduation include:

- Strong high school performance/GPA (Fike & Fike, 2008)
- Rigorous and relevant high school courses (Miller & Gray, 2002; National Center on Education and the Economy, 2013; Nunley, Shartle-Galotto & Smith, 2000)
- Sense of self-efficacy (Tang, Pan, & Newmeyer, 2008)
- Good study habits and metacognitive awareness (Li, et. al, 2013; Ryan, Gheen & Midgley, 1998)
- Sense of purpose or a goal (Arrington, 2000)
- Getting financial aid (Crosta, 2013)
- Receiving good high school guidance counseling (Dykeman, Wood, Ingram, Pehrsson, Mandsanger & Herr, 2003; Hughes & Karp, 2004, 2006; Lapan, Aoyagi & Kayson, 2007)
- Getting good college academic advising (Makela, 2010)
- Having knowledge of the college system and expectations (Oldfield, 2007; Tornatzky, Cutler & Lee, 2002)

The students in this cohort exhibited many demographic characteristics that would place them at a higher risk for dropout. The program sought to provide support services and to develop characteristics that would position them for success.

*[This was an] opportunity to have an innovative program that could help students that have historically been challenging to serve. It was all [of the risk factors] wrapped in one. It was low-income, first-time college, first generation, Native students. I mean, they have it all.*

## Outcomes

The original grant language called for student outcomes around program completion, internships, and sustained employment, and some of the planned programming was changed in response to student needs and implementation limitations.

The outcomes around student completion and graduation are summarized in table 4, and are the outcomes of focus and interest for the study.

Table 4		
Target and attained program outcomes		
Outcome	Target	Actual
Earn Industry-recognized Occupational Endorsement in Health Information Technology	<b>21</b> 85%	<b>10</b> 40%
Retain graduates in postsecondary education to complete an associate or baccalaureate degree	<b>5</b> 20%	<b>5</b> 20%
<i>Though the completion rate did not meet the target as outlined in the grant objectives, it exceeds national averages for community college students. Five students did indicate intention to pursue further postsecondary education, which was an exact alignment with the grant objectives.</i>		

The outcomes were ambitious, given national and state college retention and graduation rates. Actual performance still exceeded typical graduation rates for community colleges, and particularly for this student population. Given the program's success, the unique delivery model, and the unique needs of the student population, the leadership team determined that the program merited a more in-depth review.

*Two years for 25 young adults who have no experience whatsoever? We got ... 10 of them through the program? Under those kinds of odds? And the kind of profile that we said we were going to look at? We were trying to impact these low income, no training, lack of training. All of these. And to get 10 of them through!*

## Method, participation, and analysis

The project employed a case study method (Merriam, 1988) to explore the following research questions:

- What factors contributed to the success of the program?
- What could be improved?
- What are the elements essential for replicating the model?

To answer these questions, the following data were collected:

- **Interviews** with program staff, faculty, students, and administrators, employing in-depth interview methods developed by Kvale & Brinkmann (2009) for one-on-one interviews, and focus group interview techniques as described by Krueger & Casey (2009).
- **Documents** including grant applications and reports, course descriptions, organizational and institutional websites, and promotional materials
- **Observations** of physical spaces used for service delivery

Data were collected in the summer of 2015, just after students graduated from the program and as they were participating the bridging college and careers courses. Six of the 10 program graduates (60%) participated in a focus group interviews. Additionally, twelve of the faculty and staff members who worked with the program participated in the interviews, reflecting 86% of all staff who worked in the grant leadership or in direct student contact. Fiscal staff were not included in the study.

Data analysis employed a thematic, constant comparative method (Glaser & Strauss, 1965) to identify significant themes across sources, whereby statements and other data sources are identified and coded for meaning.

## Findings

As with any grant or program, the analysis yielded identifiable strengths and weaknesses. This report presents findings as tangible activities or resources that contributed to program success, intangible or qualitative elements that facilitated success, activities or initiatives that did not work well, and missed opportunities.

### What worked: The tangibles

Though interviews, some physical activities and resources emerged as imperative to program success. These tangible elements include:

**Stipends** – Research has demonstrated that it is not just the direct costs of coming to college that impact retention and graduation; low income students are more likely to experience attrition even when the direct costs are fully covered (Stinebrickner & Stinebrickner, 2003). Though the stipends were not enough to offset some of these competing costs and students had to find part-time jobs or do other work, it is clear that they provided a financial incentive and helped to offset lost earnings. The stipends covered not just class time, but designated study time as well.

*Minimum wage to go to school [was meant to] enable [students] to go to school rather than [be] a motivation to sign up for the program.*

**Laptops** – Though the University and CITC have computer labs for students, the provision of laptops was a critical factor to success. Students each received a brand new Dell laptop, which they were able to use in class and at home to complete assignments. The computer also allowed students to “dial in” if they could not physically attend class, though few students did this due to a lack of Internet access at home. In addition to classwork, laptops provided two other important functions: students were able to develop computer skills, and providing students an expensive piece of equipment upfront communicated the program’s trust and confidence in their ability to succeed.

*If you’re dealing with suburbia, most of these students already have a laptop. It’s not an issue. [But] most of these people do not have computing devices of their own.*

*We bought cases for them. Laptop cases, neoprene ones. We bought headphones. They get a new, brand new computer, and it’s like, “See ya tomorrow.” It’s a huge leap of faith with a lot of assets.*

**Technology** – In order for the unique distance delivery model to work, students, faculty, and the classroom needed real-time audio and video communication. In addition to hardware, content was curated through a course management software.

*[It’s] an unusual setup. ...We had to facilitate some way for the instructor to be able to see and communicate with the students, and teach the class.*

**Staff and services** – Student success was also facilitated by staff and services, which provided support in three key areas: navigating college, social support, and academic support.

- **College services** - Incoming college students on a traditional campus have access to a myriad of services such as advising, tutoring, and library resources. Because the students were not physically attending at their home campus, CTC and CITC services created and approximated a campus experience. College students typically underutilize such services (Karp & Bork, 2012; Ryan, Ghreen & Midgley, 1998), and their provision within the cohort model not only increased effective use, but helped students to develop awareness of help-seeking skills necessary for independent learners (Zimmerman, 1990).

*There was not going to be an English class. But they were gonna have to do a lot of reading. Heavy reading. And also a certain amount of writing. ... Almost anybody coming into college level textbooks is gonna find it hard. ... Their reading level was okay. But here comes this 25 page chapter, what do you do with it? How do you tackle it? How do you remember the information that you need to remember? And that kind of coaching, most new students need at a college level. To varying degrees.*

- **Social services** - Social supports and wrap-around services from CITC including assistance with transportation, housing, clothing, and food were key elements of student success. Connecting students with resources, serving in a counselor or advisor capacity, and encouraging students positively impacted student retention.

*Under [the] HIT program, you get the distance delivery curriculum training program. And you get some of the benefits that you’re entitled to as a university student. You get the WolfCard. You get all these other kinds of things in there. But the nice thing is you’re [also] part of CITC, [and] we have wraparound service supports. I know that you need childcare. Or you need transportation. Or you need work clothing. Or you need housing. ... We break down the challenges – barriers to employment that people come to Anchorage with from the villages. ... We surround the students who are involved with HIT with these wraparound services.*

- **Academic** - Though the content faculty were remote, their availability and support to students bridged distances. Engaging in nontraditional communications with students (text messaging and cell phone calls after hours) provided encouragement and support outside of the classroom. Students' frequent and ready use of this support evidences the value they placed on it. Additionally, academic support from the TA and tutors provided face-to-face, in-class support which further personalized the learning experience. When these staff came to students (rather than requiring students to seek them out in a learning assistance center), it made academic help-seeking less intimidating and more natural.

*The students had my cell number, and some of them texted on a regular basis. Some of them called.*

*Having a lot of help available, of various kinds – that was great. That was one of the best pieces.*

**Face-to-face kickoff event** – Before classes started, faculty flew in from Sitka to meet with students and service providers. The travel showed faculty willingness to “go the distance” – quite literally – for students. Faculty, staff, and students recalled this as a significant activity for developing connections. Though the meeting covered various topics, the value was in the exchange and sharing of stories and personal narratives, which created a sense of empathy and humanness for communications.

*I think about that first day when the students introduced themselves. They all introduced themselves in a long period of time. They talked to us. They told us their stories. And I was in tears by the end. Their lives have gotten in their way, but they wanted to succeed, they wanted to better themselves for their kids, for their families. And when you know that, you have a lot more empathy.*

**Cohort model** – Many studies have documented positive impacts for cohorts in general (Lenning & Ebbers, 1999), and in community colleges (Rocconi, 2011) and distance education programs in particular (Conrad, 2005). Additionally, the synchronous component and shared physical space where students came together facilitated social bonds: the students created social contracts with one another, and they provided one another with emotional and other types of support that only a peer could provide. Within the cohort, student leaders emerged, and individuals were celebrated for their unique skills and contributions.

*In the beginning it was all distant. Once we started moving along, we started getting to know each other. Helping each other. Pushing each other.*

*We had them all in a room and they had each other to work off of and cohort with. Not by themselves in front of their computer.*

*I think they worked as a community together. And that was effective. ... I think there was probably some apprehension of attending taken away because they would build friends.*

*The feeling in the room, it was a totally likeable bunch of students. Upbeat and nice. People were kind to each other.*

*They were very, very supportive of each other. Even to ones who weren't able to make it for one reason or another. A lot of those people showed up for their graduation. And they were still huggin' and cryin.' ... [They sometimes got frustrated with one another], but then they're right there supporting [one another] when they were running into problems, and they no longer have a house. They got fired. Something with their kids. They had that nice support. ... That was a very strong point.*

## What worked: The intangibles

In addition to the tangible program elements, good chemistry and partner relations facilitated the program's success. Though these qualitative elements may be more difficult to orchestrate or plan in a replication sense, they were essential to the success of the HIT program.

### Positive attitude and staff

**commitment** - In interviews, as staff described some of the problem-solving they overcame, they modeled a "can-do" attitude and commitment to students, and complimented and acknowledged this positivity in the other team members. This was perceptible and motivating for students and for one another.

*I do what I think I needed as a student, that's how I make it. I do what I think I needed and what I wanted as a student.*

*If there was an issue, we'd figure out a way to fix it. ... The whole group was always centered on, "What do we have to do to make this a successful program for these students? To get these students through?" ... I think [it] was a very unique population, and they had some very unique barriers and issues. And everybody worked to help the students instead of saying, "Well they just need to get over it. They're college students now." I think everybody really cared about the kids.*

*I tell students all of the time, "Without you, we wouldn't have jobs! So please use us!"*

**Clear roles and distributed workload** – Each program's unique scope, physical location, and expertise clearly delineated responsibilities. Even when an unexpected issue emerged, who should handle it was easily determined. This minimized conflicts about responsibilities and competition between programs. The workload and responsibilities were well-distributed between the partners (there were no "lurkers" or "silent partners"), which further strengthened the partnership.

*The way the grant was laid out, I think that helped delineate.*

*Nobody ever said, "We're not gonna do that. That's not my job, we're not gonna do that." Or, "You're gonna have to do that." Nobody ever did that. It was always, "How can we make this happen?" And then people would chime in how they could contribute.*

**Mission alignment and mutual benefit** – The program aligned with each partner's mission and values. As such, every player had a tangible stake and vested interest in its success. None of the partners came to the program begrudgingly, rather they were enthused at the opportunity to collaborate.

*It fit right into what we are trying to do here.*

*Designing these programs, there has to be a little bit in it for everybody.*

**Communication\*** - Regular communication between partners was built into the program model. These meetings engaged not only program administrators and fiscal personnel, but the staff and faculty in direct student contact. These meetings facilitated collegiality and alignment for the duration of the partnership.

*I think the key ... was just being totally committed to communicating. So the right hand was knowing what the left hand was doing or thinking. ... We learned a lot through that.*

*There was a lot of good communication. There was a lot of people involved. And when a question would go out, it was sent to the whole group. Or several people in the group would get cc'd. And I think it left everybody kind of on the same page.*



### **Student perseverance and commitment –**

The success of the program, though organized by the partnering organization, truly rests with the student participants who attended classes for 15 months.

Students who completed the program demonstrated tenacity and grit in regards to their own studies, but also a genuine commitment to one another's success. Student personalities and commitment cannot be overstated in discussions of the program's success features.

*I felt very proud myself. And of my classmates. It was a hard course. Confusing at times. But we all did it together and helped each other out. So I felt very proud of that. For continuing on and not jumping out like some of us wanted. I know I didn't. I didn't jump out. I pushed myself.*

*They showed up day after day and were trying really hard.*

*When students started to fall off and drop out of class, when someone said, "Oh, I'm just gonna drop the class. I can't do this anymore," [a student] was the one that was cheering them on and saying, "Hey, we're together. We're in it together, and you can do it." He was their cheerleader.*

\*Interestingly, though communication and the student-centered approach were identifiable strengths for the program, they were also areas of significant opportunity. The adages that "students matter most" and "we're here for students" were clear and undisputed, but operationalizing these values led to some disconnects, described later in this document.

### **What didn't work**

Some of the program elements that did not function well to support student success are enumerated below.

**Course sequencing** – Though courses were sequenced thoughtfully and with intentionality in the grant planning activities, in retrospect, students may have benefitted from different sequencing.

- **Computer literacy** – This course was taught in tandem with the first content course. Colleges serving millennials generally assume a certain degree of technical proficiency. In this case, however, students lacked some very basic skills and would have benefitted from front-loading computer literacy development. Some of these included typing skills, basic software applications, and Internet safety including virus awareness and personal identity protection. A better iteration would have students refine these skills as they apply them in the course, rather than develop them there. This was apparent to the faculty, and the curriculum has since been changed for all students. This responsiveness is an example of the adaptability and the critical reflection that is happening within the program.

*I think having a list of all the skills that we learned in the first class, the computer literacy. I think that would be a good start for the questions. If they know how to use Excel, if they know how to copy and paste. If they know how to switch different screens, in and out of your screen and split it. All that. That's something I had to learn. Because I ever knew anything about computers. So I struggled a lot in that class.*

*I would say 90% of the students had not experienced the Internet and all its dangers. ... Trusting links to sites, games, personal data protection. ... In the future I would spend a great deal more time familiarizing people with the security, virus protection, personal identity protection. I think these are critical.*

- **Bridging course/college success class** – These courses were taught after students completed the credential. Students would have benefitted from a transition course that helped them understand college expectations and policies; faculty and staff indicated that they would like to draw upon that content to reinforce these skills throughout the program. As student completers are facing a new transition to college and careers, a capstone transition course with additional relevant content is still recommended.

*That piece was supposed to happen at the beginning instead of at the end. And so that would be something that you would build into the beginning of it. And then it gets reinforced throughout the program.*

**Recruitment** – Timelines imposed by the grant meant a very short recruitment period. Though the staff did a commendable job in recruiting, communicating, and selecting appropriate student candidates, the timeframe was inadequate for the task. This resulted in a full cohort, but not all students were well matched to the program goals and expectations. Students and staff suggested additional time and considerations to be included in the recruitment process.

*If we had time, we would have did like we do with [another one of our programs]. They have to write an essay...that really capitalizes on how this was going to be life-changing, important for you. If we had time, we would have did that.*

*I think that the people that we lost right away got in and realized, that "I'm over my head. I'm just over my head. I can't do this." And dropped out accordingly.*

*In the recruiting, [we needed to make] sure students understood what the commitment was, what they were getting into. And realistically, how does that fit into you needing to work and take care of your family? The other is looking at the students then at where they're at. Do they need math and English before we even get started, do they need a computer literacy class? So assessing the students before they begin.*

*Imagine what we would have done if we had taken the time to screen and interview or talk to a hundred students and say, "Are you interested? This is what it looks like, this is the program, this is the job you would do on a daily basis. Who wants to join?" And you get 25 people who went in with their eyes wide open. We could have had 100% success.*

**Technology** – Though technology was identified as a tangible element that worked, the resources dedicated to this program could be described as adequate, but not optimal. The system was laudable for the time and budget available to develop it, but the Collaborate software limited the video display to either a video feed or a content slide, and the instructor's face was not visible as often as students would have liked. Students also noted poor sound quality.

*[The technology was] adequate to hear the words, but not pleasant to listen to.*



**Childcare** – Childcare was identified as both a barrier for students who had difficulty finding it, and a disruption to instruction as many students, lacking other options, brought their young children to class with them. Though childcare was available to students while they were in the CITC facility, the cohort met for class and learning on campus, and childcare facilities were not available. Addressing this student need would facilitate student attendance and attention.

*I had to bring my baby to class more than a few times 'cause I didn't have a babysitter.*

*Childcare was a real big issue. 'Cause we had situations where people were needing childcare. And you know, they ended up bringing their kids to class. And ... that was a distraction for some of the students in class. And there were a couple students that voiced concerns.*

*We've got a little problem with students ... having their children in class. This is a classroom setting, and it's not [being] treated as such.*

**Class times** – Students' schedules vary tremendously, and it is clear that no class time will suit all learner needs. Though the mid-day class time made attendance easier for school-aged children, it was difficult for students to coordinate classes with part-time jobs. This created a complication for some students.

*Many of our students had to work part-time and it interfered with their class time. [When classes are scheduled mid-day], this means that they cannot work during the day. This means that they have to find childcare. And it's a real challenge for students.*

**Stipends** – Though the stipends were a significant program strength, students and program staff noted that they were not adequate to offset lost wages. Though the stipend clearly motivated students and helped them with expenses, it was not quite enough to alleviate financial stressors.

*Our program paid students \$8.75 per hour while they are in class. Our program paid students gas mileage one-way to class. Not return. This makes it almost impossible for them to live. Financially. ... Many of our students had to work part-time and it interfered with their class time. ... It's a real challenge for students.*

*It might have been nice if...we had a stipend that was a little bit more substantial that allowed them to concentrate on their classes rather than worry about the day-to-day obligations of, "What am I going to do for the next meal?"*

## Opportunities

Hindsight being 20/20, it is always possible to identify missed opportunities after a program has concluded. The comments in this section are not criticisms; some opportunities could not have been anticipated, and some were restricted by circumstances, time, or budget. However, it is important to acknowledge the opportunities that emerged as themes, so they could be considered in a future iteration.

**Industry involvement** – This is a fundamental tenet of the career pathways initiative. Though students were able to attend a conference and to see and meet some industry representatives in a professional conference setting, there was an opportunity to engage local industry partners. The original grant plan included an internship, which was cut at the very apropos realization that, at the time it was sequenced, students were not yet ready for an experience in a medical office. Yet finding other ways to engage industry partners is an opportunity. If this program seeks to incorporate industry partners, managing and supporting their involvement would be an additional role for the program partners to delegate and assume.

*You don't want to place people before they're ready to be professional. And be part of the team. [We were] concerned about placing people in organizations before they were ready. In the sense of ready for content and ready for professionalism to be there.*

*These health organizations ... they don't have the capacity to take any kind of intern or job shadow or any of that.*

*Part of the reason that businesses are reticent is they don't know what to do with [students] when they get there. They don't have a curriculum. They don't have any idea what to do with these people. It's not like in a union shop. If you sign up to be an apprentice for a pipe fitter they've got a curriculum. Boom, boom, boom. And the industry partner knows what that curriculum is and what the learning outcomes are. But [in this case], ... they don't have a clue. So I think as the education partner, we owe it to them to develop the curriculum and sit with them and say, "Here's what needs to happen. And I'm here to provide you with support for this student. And help you measure these outcomes and help you do this."*

**Career exploration** - Though time for recruitment was identified as a barrier, there is also an opportunity to add an additional component to the recruitment process. There is an opportunity to both help students explore their own interests and aptitudes, and also to better explain the Health Information Technology field and occupations within it. Though all students will develop more knowledge and familiarity about the field and job demands as they progress through a program, many students did not understand what the field was, and/or decided that it was a poor fit for them after they learned what the program was about.

*I think they need to do some kind of questionnaire or test or something to even let people know if they want to do this program. This type of thing. Or let them know more information about it. Because, my friend, she was going to it. But then when she started learning about it in the first semester, she was like, "I'm not interested. I don't really want to do it." And she quit.*

*People are lured into the idea that there's a good salary, but they really don't know what's involved and how to succeed in that field. Lots of people that are not successful are the ones that are just looking at it salary-wise, and then when they get into it, they're not really all that interested. ... That's one of the things that I heard from students: "I know I can make 50 thousand dollars." Well, actually that takes a lot of effort to get to that point.*

*Recruit the students. Get them assessed, and bridge them into studying. Computer literacy. And then say, okay, after you go 6 weeks or 10 weeks for this, then ... we will put you into this. And during this time, we will tell you what you can do with the skills you're gonna learn. And then you can decide before you get into it whether you're gonna do it or not.*

**Changing majors** – Most incoming college students change majors at least once over their course of study (Capuzzi Simon, 2012). This is to be expected as they learn more about themselves, the field, and other opportunities available. Following the career pathways model, students typically refine their interests and ultimately decide on a program of study (PoS) after choosing a cluster and developing foundational skills. As CTE college majors this program focused on the PoS level, it is unsurprising that students self-deselected. Some of this could be avoided with increased career exploration in recruitment, however providing some options for students who wish to “change majors” is an opportunity.

*We had a group of students that figured out that it wasn't their interest. The sad thing is ... they just dropped.*

#### **Job seeking and career planning support –**

Though the students who participated in the study had completed the credential, they indicated they were not looking into the HIM field for employment. They expressed frustration with job searches, confusion about entry-level positions, and frustration that they did not meet eligibility requirements for the job announcements they found. Though CITC employment counselors or specialists were going to work with them for job placement, students would have benefitted from engaging in more career development planning and job search skills throughout the program.

*My plan is just to work at Fred Meyers. And maybe find a better job somewhere else. Maybe wait tables again.*

*It's really hard to find an entry-level position. Who's willing to hire you without any experience? Just right out of school. You go look online for a job and they want experience. They want years of experience. And we don't have that. We don't even have an associate's degree.*

*We looked at jobs and stuff. ... We'd go on Craigslist and look at them.*

*What advising have they really had? ... They need to meet one-on-one with an academic advisor and say, "Where do you want to go now? What's your time?"*

**College readiness and soft skills** – A recurring theme from interviews was a need for students to develop college readiness (e.g., study skills, time management, metacognitive skills, reading strategies) and professionalism or soft skills (e.g., arriving on time, meeting deadlines). Some staff also discussed the need for students to develop life skills (e.g., balancing a checkbook, managing personal finances). The program has an opportunity to create a more explicit plan for teaching, modeling, and reinforcing these skills within the program, as well as identifying which should be developed as pre-requisites to admission (e.g., typing skills, computer literacy, study skills).

*We had a lot of people right off the street. No training whatsoever. But a desire to do this. But no experience to draw upon either. From a family member or a close friend. And we just put 'em right in class. And I think we bombarded them that way.*

*You got a group of students who had barely graduated from high school. If they did, it was 2.0, and it was years ago. They're working, or they're parents, they've got kids, they've got families. They haven't been in school for years. Maybe they have a GED. They dropped out of school when they were sophomores, so they haven't been in school since there were 14 or 15. So then you throw them in this setting, and you're like, "Here! Let's take classes right up front!" And they were all like, "Arrgghh!"*

*Students should have taken intro to college, a guidance class. How to be a better college student. How to organize your time. How to spend your time wisely. How to keep a planner. How to read a syllabus, know the importance of attendance. ... Many of these students are nontraditional. They've been years out of high school. They don't know the beginning of being a college student.*

**Incorporation of Alaska Native culture** – Though the program was exclusively available to AK Native students, the curriculum and student services were not expressly designed to include a Native component. This is not to suggest that the curriculum was deficient, but there is an opportunity to acknowledge and celebrate the students' culture. Beyond a more culturally relevant curriculum, this would have been an opportunity both for faculty and staff to learn about Native culture, as well as for students to identify and discuss hegemony and social issues as barriers or challenges to them individually and as a people.

*I would love to have a component of Alaska Native studies somewhere in this curriculum. ... Where we've come as a Native people. Where we're going. And what the importance of education is. I think sometimes we get so busy in this world that we forget who we are as Native people. ... Our people have come a long way in 150 years. From living in subterranean homes to technology and the corporate world. ... But yet maintaining our culture. Our pride. Taking time to create Native artwork. These are important, I think.*

## Discussion

Linguists have identified “loose talk” as our capacity to use terms or phrases for which we have general understandings, but lack a concrete referent (Gatewood, 1983). Interviews and program documents revealed that even when people used the same term, there was contradiction or misalignment in their meaning. Terms like *student success*, *college readiness*, and *soft skills* were used frequently, but held different meanings for the various people or entities that used them. Analysis suggests these differences are rooted in the philosophical and theoretical frameworks within or upon which the partnering programs operate.

### Philosophical – Student success

For grant purposes, “success” was student retention and, ultimately, graduation from the HIT program with subsequent continuation in a HIM associates degree or employment in the HIM industry. In evaluation terms, this would be identified as a program output, one that is tangible and easily measured.

Because each of the partners came to the grant with established programs, they also had their own definitions of success, things they strive for regularly. The students also brought conceptions of success, and goals for themselves. For many of the players, retention and graduation were paths to success, rather than success in and of itself. Others had alternate or complementary conceptions of success. Some of these included:

*Look at the people we helped. There's people that are gonna get better jobs.*

- Attending class regularly
- Passing individual classes
- Completing a degree program
- Earning a living wage
- Finding a job aligned with one's interests and passions
- Having a steady paycheck
- Supporting family
- Creating a stable, healthy home environment

None of these definitions of success are mutually exclusive or inherently problematic. On the contrary, they are largely complementary. However, retention in the HIT program was not always the most direct pathway or linkage to these other forms of success.

Additionally, each program operated within an established set of guidelines and policies. At times, the program goal of retaining a student could be achieved, but not within protocol. A mantra that was repeated in the interviews was “Do anything you can to retain students.” On the surface, this looks honorable, but it led to some muddy waters when staff and faculty tried to operationalize that objective. It is possible to retain nearly all students (with a few exceptions), but at what point is the good intention of retaining a student injurious to the student or to the program? Some of the student retention activities were interpreted as deleterious as they:

*There was really a lot of pressure to keep the students in the program even when they weren't academically performing.*

- Watered down curriculum
- Skirted or broke policy
- Misaligned with industry standards
- Failed to uphold academic integrity
- Did not prepare students for college expectations
- Were unfair to other students
- Disrespected a partner's authority
- Undermined other program objectives
- Coddled students, encouraging dependence, rather than independence

Decisions were made with the best intentions at heart, but sometimes led to confusion and conflict between program staff. The partnership lacked a cohesive philosophy that would guide decision-making in instances of conflicting values. It seems that if the philosophies about student success are not unpacked, this will become a contentious point between partners. It does not mean that programs need to shift their philosophies, but rather if partners have an understanding of the framework within which their counterparts act and make decisions, it will lead to more collegial and collaborative interactions.

This is also an opportunity to reexamine how grant objectives are written; different types of success, or gradients of the ultimate objective of graduation and placement in college or job may be more inclusive of student and program goals, conceptualizing success as continuum, rather than a binary.

*I would say there's many points of success, but many points that need refining.*

### Theoretical: frameworks

Theoretical frameworks form the structure for how programs work; in grants these are often described or depicted as logic models. Theoretical frameworks provide structure for an organization – they describe its place, role, and approach to acting out its mission.



Through interviews, it was apparent that Maslow's Hierarchy can be used to describe the crux of ETDC's work. The hierarchy, depicted visually in figure 3, suggests that human beings prioritize needs. Basic needs of food, water, and shelter must be met before a person can think about other, less immediate needs. Each level of the pyramid depicts a need that must be satisfied before a person will strive to meet the needs of the next level. Staff at ETDC recognize that, for their clients, work is a mechanism for meeting those immediate needs. Clients need income and they need jobs, and given their place in the hierarchy, they do not have the luxury of waiting for the "perfect opportunity" or spending much time in training programs.

*The students were hungry. ... We all know that you don't need to be hungry then you're trying to study.*

*I had several students who, during that period of time, were homeless. A couple had lost jobs, had been fired, kind of things. So, you know, there's a lot of things happening.*

*One of the gentlemen, his circumstances shocked me. He was homeless. He had nowhere to go. He would be there all day long sitting at the mall. ... And that's why he did drop out of class. Is because he had nowhere to go. ... He had potential. He had desire. He didn't have anywhere to live.*

*I have students who are struggling because of money, awful things happening at home, all kinds of those things. I feel that I need to do everything I can to connect them with services that are gonna help them stay in school. But every now and then, you get [someone] who just really isn't ready to do it. And you do everything you can, and you make it as welcoming as possible, and you pull 'em in. But it may not be that person's time to do it. [We sometimes need to] recognize that for a range of reasons, it might not be the right time or place for them to do this particular thing.*

Colleges and universities have a different mission and theoretical framework. Especially in the CTE disciplines, colleges operate in a Career Pathways and Program of Study (PoS) framework, depicted in figure 4. This framework suggests that individuals must first develop strong roots, or basic skills; from there they begin to identify fields or clusters that interest them, and they develop foundational skills that are broadly applicable to a variety of different occupations (e.g., medical terminology would be necessary for many different health occupations, ranging from transcriptionist to surgeon). From a solid foundation, they choose a pathway (e.g., health pathways could include therapeutic services, diagnostic services, informatics, or research) and from there, they pick a specialized program of study that would give them a credential or degree to qualify for the position that matches their interests and aptitudes with a fulfilling job. Like Maslow's Hierarchy, students should address foundational skills before moving higher in the framework.

Figure 3

### Maslow's hierarchy of needs



*Maslow's hierarchy provides a framework for understanding how human beings prioritize needs. Basic needs must be satisfied before an individual will be able to prioritize higher-order needs in the psychological or self-fulfillment realms.*

Image: <http://www.teach-nology.com/tutorials/teaching/whatareneeds.html>

When the two frameworks are juxtaposed, it is clear that ETDC and the college partners work in very different realms. Individual students arrived in different places of Maslow's hierarchy, and moved up and down within the framework during the course of the program. Some students faced significant challenges during the program, including divorce, homelessness, and addiction. These needs would take precedence over learning, a higher-order need in the hierarchy. Their perseverance suggests that students may have approached the concept of job training and development as a means to meet basic needs.

Concomitantly, the PoS framework conceptualizes work as an opportunity for engagement and self-actualization, rather than a means to meet basic needs. In this regard, the theory underlying the framework fits into the psychological or self-fulfillment realms of Maslow's hierarchy, and students may not have been ready to conceptualize work in this way.

These noted contradictions are not meant to suggest that self-actualization through career choice is a goal that should be abandoned. On the contrary, these objectives are the visions for our organizations. Rather, this suggests the inclusion of additional program elements, a reorganization of the order in which some activities are completed, and an opportunity for pre-program activities that will facilitate student learning and success. It is also incumbent on programs to examine the theories and their limitations for serving unique student populations, including Alaska Native students.

## Recommendations

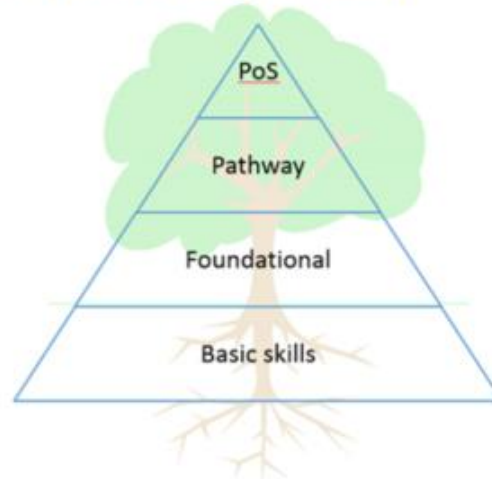
The analysis of philosophy and frameworks may seem academic in nature, but examining these paradigms identified opportunities for action. The differences identified above suggest three significant practical things to work on: recruitment, communication, and curriculum.

### Recruitment

With clearer answers to philosophical questions around success and more fleshed program objectives, recruitment can be more targeted, focusing on student attributes that may be more directly linked to a shared vision of success. With a clear philosophical definition of success and beyond just student retention, the team can ask more targeted questions for recruitment. Some of these guiding questions are depicted in figure 5.

Figure 4

### The Career Pathways framework



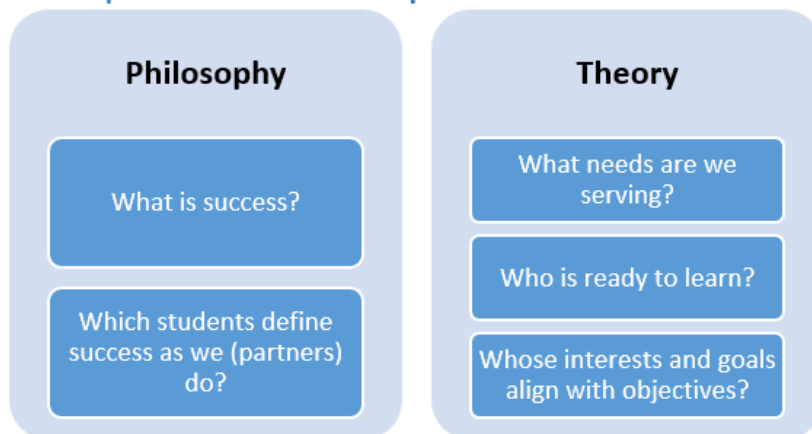
*The tree schematic represents the coursework in a students' Program of Study (PoS). Students begin at the roots, exploring themselves and the career options that would match their interests and aptitudes. As they focus their interests, they take foundational courses, which serve as the trunk of their knowledge base. From foundational courses, students branch into more focused PoS courses, which prepare them to specific careers.*

*You know there's a few tweaks, but during the whole process, I don't think people were looking back saying, "Well if you would have done this differently..." You know? It was like, "How can we make this better in the future?" You know? It wasn't, "Good grief, are we ever gonna get through this?"*

Students, faculty, and staff engaged in the program further offered suggestions for skills, interests, and competencies to be included in the recruitment process. A recruitment process that combines these philosophical, theoretical, and practical components would facilitate more effective student identification and selection.

Figure 5

### Philosophical and theoretical questions to inform recruitment



*Program partners should discuss how they conceptualize philosophical and theoretical approaches to program administration, and use these conversations to refine recruitment processes.*

## Communication

It is clear that the partners were committed to communication – the monthly meetings and general casual exchange were a testament to a positive working relationship. However, better fleshing out of the philosophical and theoretical differences will facilitate better and more effective communication, as philosophy and theory manifest in thoughts and actions, which affect the relationships.

*When [my colleague] said that, it really hurt. It really was discouraging.*

*I'm at the point where I want to look for another job. ... It just turns into a snowball effect that gets worse as it goes down the hill faster.*

Differences can complement one another in working relationships. The key is the shared interests, established and identified through mission alignment, and communication rooted in shared understandings. Starting with a review of some of the “loose talk” that has been applied up to the program will help the players to get on the same page, as well as to identify (and respect) differences.

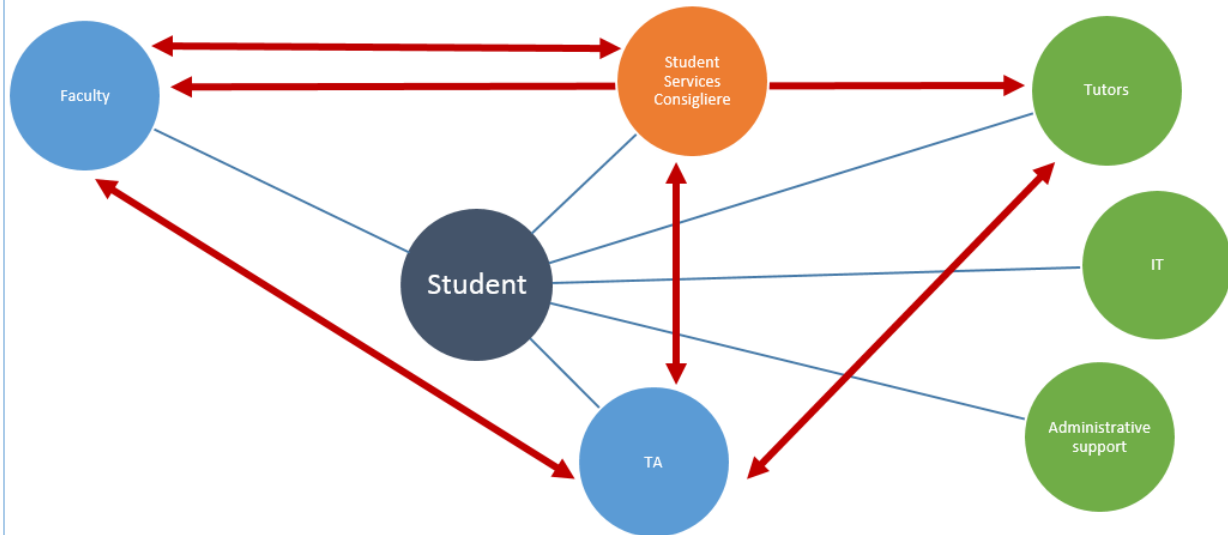
*I ran into some problems later on with [my colleague's] understanding of [what I was supposed to be doing].*

Figure 6 depicts lines of communication that should be purposefully strengthened through dialogue. The relationship between these positions and how they serve complementary roles to one another should be established between providers and within the partnership.



Figure 6

### Communication within the partnership



*As team members work in complementary ways to serve program objectives, communication between key personnel is essential to maintaining productive relationships and aligned activities.*

### Curriculum

Curriculum is more than classes and content, but the sum experience of learning (Walker & Soltis, 2004). There is a clear opportunity to explore Native views of success and theories of learning and personal development and to examine how these can be incorporated as integral components of the program. Because the program specifically recruits Native students, this is incumbent on the providers; CITC is a clear authority in this realm and has an opportunity to shape the program curriculum around this initiative.

*[We] need to understand [our] students. We can't always have the attitude that one way is the only way. We can't have different requirements for different people, but in a cohort, when you recruit for a specific group, I think you have to understand that group.*

### Replication

Besides the identified program elements, and needs, the program overcame some significant logistical challenges including

- Cross-campus collaboration
- Distance delivery
- Serving at-risk student populations

These challenges will be present when separate college entities partner. The value of a central coordinator who was familiar with both institutional systems cannot be overstated.

*A lesson learned is that ... you have to have somebody in administration. A staff member doing that kind of massaging and helping out.*

*I think we broke down some barriers and walls.*

Though the program is too young to make an authoritative best practice recommendation, some lessons learned are useful considerations, and are outlined in the appendix.

## Conclusion

A limitation of this analysis is it did not explore long-term outcomes – specifically, how many students went on to pursue jobs and careers in Health Information Technology, and how they fared in their continued postsecondary experience. This is an opportunity for additional study and follow-up. However, the collaboration’s first cohort experience identified strengths and opportunities, and a study of the inner-workings of the program itself provides opportunity for other programs to learn from its successes, as well as its pitfalls and pratfalls. Ongoing program development and refining of the model will offer significant opportunities to deliver curriculum to rural areas, to distribute and diversify workforce development and training, and to engage new industry partners – both for the academic program that delivers the curriculum, and the local host institution. Such collaborations hold promise for increasing student access and success, particularly among rural, first-generation, non-traditional, and diverse student populations.

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# Appendix: Considerations for replication

A study of the program's first cohort identified some lessons and practices for other programs to consider when implementing a similar initiative.

## Identify partners

Identifying the right partners in programs that have complementary missions and objectives is integral to a successful partnership. The partnership should align with each individual program's objectives, and engage active participation from each.

- **Academic institution** – providing content
- **Host institution** – providing a physical space, academic support, technical support, and administrative support
- **Support program** – liaising academic and social services to address students' personal and learning needs

## Establish common ground

Just because the programs serve complementary objectives does not necessarily mean that they have the same priorities or values. Identifying how each program structures decision-making and priorities upfront is a critical first step to ensuring a healthy collaboration.

- Compare each individual program's theoretical framework or logic model
- Establish a philosophy for the joint program and partnership
- Identify and clarify loose talk – key terms that are integral to success, but that could have multiple interpretations (e.g., student success, academic support, tutoring, collaborative work)

## Clear roles

Establishing expectations for each institution and staff or faculty member upfront is critical, but the roles should also consider how different positions work with and support one another. Clarity of expectations and communications between staff who work for complementary objectives cannot be overstated.

Figures 2 and 6 note some of the key responsibilities that faculty and staff had to students, and their working relationships to one another.

- Map institutional or program-level responsibilities
- Map individual responsibilities connected to each faculty or staff position
- Map these responsibilities to students
- Map these responsibilities to one another

## Material resources

The material resources of this program, particularly those provided by the grant, cannot be overstated. Those key elements included:

- Hourly wage stipends
- Tuition and fees
- Laptop computers

- Accessible physical space on campus
- Technology infrastructure at instructor and student sites

## Human resources

The human resources in the program are integral to success, both in the positions that provide specific services and functions, and in the dispositions of individuals that foster positive collaborative working relationships. All staff and faculty should have an intrinsic commitment to students and to the program objectives, positive attitudes, and willingness to engage in creative problem-solving. Key positions include:

- **Administrative manager** with familiarity in all of the three individual programs adequate to negotiate competing policies and bureaucratic processes
- **Faculty** in the content area
- **Graduate assistant** with content expertise
- **Tutors** to focus on basic academic skills (reading, writing, and mathematics) and study habits
- **Student services coordinator** familiar with policies and support resources available at the two partner academic institutions, as well as community and state-funded resources
- **Instructional designer** with expertise in online pedagogies
- **Information technology support**
- **Administrative assistant**

## Team management and maintenance

Once the team is established, ongoing care and maintenance of the network is essential. A plan for frequent communication should include:

- Fiscal management
- Regular communication between leadership at each individual program
- Regular communication between staff who work directly with students
- Progress reports around grant outputs and outcomes
- Triage plan for unexpected program challenges or student needs as they arise
- Schedules and timelines, especially as they differ between institutions